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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,980	11/11/2003	Donald Sullivan	FGT 1850 PA	2979
28549	7590	11/21/2005		
KEVIN G. MIERZWA ARTZ & ARTZ, P.C. 28333 TELEGRAPH ROAD, SUITE 250 SOUTHFIELD, MI 48034			EXAMINER BROWN, DREW J	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

This office action is responsive to the amendment filed on 10/24/05. Claims 1-3 and 13 have been canceled and new claim 21 has been added.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10, 11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (U.S. Pat. No. 6,786,505 B2) in view of Hill (U.S. Pat. No. 5,813,696).

Yoshida discloses an inflatable bag 10 having at least one panel configured for defining a primary chamber 11 positioned next to a secondary chamber 21. Gas is injected directly into the primary chamber through a primary inlet 17, which causes the primary chamber to be inflated first and applies a generally downward force to a lower-body portion of the vehicle occupant for minimizing risk of injury (column 4, lines 51-60). Then, the inflatable bag is deployed sequentially (column 6, lines 6-9) in a generally upward direction from the primary chamber (Figure 1) through the secondary inlet comprising open vent holes 33.

With respect to claim 11, at least one panel is configured for defining the primary chamber (10) with an upper sub-chamber (portion of primary chamber above a line between the parallel arrows in Figure 3(C)) and a lower sub-chamber (portion of primary chamber below a line between the parallel arrows in Figure 3(C)), where the lower sub-chamber extends substantially across a width and depth of the airbag, and the lower sub-chamber allocates the

Art Unit: 3616

substantial portion of the initial impact force to the lower-body portion of the vehicle occupant. The upper sub-chamber is sized substantially smaller than the lower sub-chamber along the depth of the improved airbag, and the upper sub-chamber absorbs and redirects the initial impact force generally downward and also provides immediate protection for an upper-body region of the vehicle occupant.

However, Yoshida does not disclose a releasable tether attached to the inflatable bag. Hill does disclose a releasable tether 70 that ruptures to allow the airbag to inflate fully until the fixed tether 60 is fully extended. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yoshida to comprise at least a releasable tether as claimed to further control the timing of deployment and the shape of the airbag. This allows proper inflation characteristics for protecting the vehicle occupant. The language used with respect to maintaining the secondary chamber in a collapsed configuration until the releasable tether detaches due to pressure is considered to be functional and does not serve to distinguish over the combination of Yoshida and Hill.

3. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Hill, and further in view of Uchida (U.S. Pub. No. 2002/0113416 A1). The combination of Yoshida and Hill discloses the claimed airbag as discussed above; however, the combination does not disclose the secondary inlet comprising at least one baffle vent or a permeable fabric panel integrated within the inflatable bag. Uchida discloses a secondary inlet comprising baffle vents or ports 6 that define the flow rate of the gas into the secondary airbag 3 (paragraph 32). Uchida also discloses that the gas ports 6 are integrated within the inflatable bag 1, which creates a permeable fabric panel 2. Therefore, it would have been obvious to one

Art Unit: 3616

having ordinary skill in the art at the time the invention was made to modify the combination of Yoshida and Hill to use a baffle vent or a permeable fabric panel as the secondary inlet in view of the teachings of Uchida. Baffle vents would allow further control of the timing and force of the flow of gas into the secondary chamber. A permeable fabric panel would do the same depending on the specific material selected for use and would also reduce manufacturing costs of the airbag since the permeable fabric panel is integrated within the inflatable bag.

4. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staub (U.S. Pat. No. 6,059,312) in view of Hill.

Staub discloses an airbag comprising a first outer panel 4 that has a primary inlet for gas injection and a second outer panel 2 coupled to the first outer panel, with an inner panel 6 that attaches to each and extends between the two. The inner panel defines a primary 18 and secondary chamber 20, where the secondary chamber has a secondary inlet 16 for allowing gas to pass from the primary chamber to the secondary chamber. After the gas inflates the primary chamber and applies a force in a generally downward direction to the lower-body of the vehicle occupant, the airbag then inflates sequentially (column 4, lines 11-13) from the primary chamber to the secondary chamber in a generally linearly upward direction. Staub also discloses that the primary chamber, which is formed between the first outer panel and the inner panel, has an upper sub-chamber defined in Figure 1 by the area of the primary chamber above the seam 8 and a lower sub-chamber defined by the area below the seam. The lower sub-chamber extends substantially across a width and depth of the airbag and allocates a substantial portion of the impact force to the lower body portion of the vehicle occupant. The upper sub-chamber is sized substantially smaller than the lower sub-chamber along the depth of the airbag (Figure 1), where

Art Unit: 3616

it re-directs the impact force generally downward for providing immediate protection for an upper-body region of the vehicle occupant.

However, Staub does not disclose a releasable tether attached to the inflatable bag. Hill does disclose a releasable tether 70 that ruptures to allow the airbag to inflate fully until the fixed tether 60 is fully extended. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Staub to comprise at least a releasable tether as claimed to further control the timing of deployment and the shape of the airbag. This allows proper inflation characteristics for protecting the vehicle occupant. The language used with respect to maintaining the secondary chamber in a collapsed configuration until the releasable tether detaches due to pressure is considered to be functional and does not serve to distinguish over the combination of Yoshida and Hill.

Allowable Subject Matter

5. Claims 4-9 and 21 are allowed.
6. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed on October 24th, 2005 have been fully considered but they are not persuasive.

On page 19, the applicant argues that none of the references show a releasable tether that ruptures to allow the airbag to inflate fully until the fixed tether is fully extended. However, as

Art Unit: 3616

discussed above, Hill does show a releasable tether 70 that ruptures to allow the airbag to inflate fully until the fixed tether 60 is fully extended.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 7 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3616

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Drew J Brown
Examiner
Art Unit 3616

DJB



DAVID R. DUNN
PRIMARY EXAMINER